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## TRACINGS OF THE ALPS.

Ye Ice-falls! ye that, from the Mountain's brow,  
Adown enormous Ravines slope again—  
Torrents, methinks, that heard a mighty Voice,  
And stopped at once amid their maddest plunge!  
Motionless torrents! silent cataracts!  
Who made you glorious as the gates of Heaven  
Beneath the full keen Moon? COLERIDGE.

THE first sight of the Alps is an era in one's existence. I had of course read of them since I had read anything, had heard people describe their beauty and sublimity as something wonderful, and fully prepared myself for a natural scene far beyond any that ever met my eyes before. Yet so truly inconceivable are the extraordinary features of nature, that the reality came at last with the force of perfect novelty. It is not, however, that the objects impress us in a proportion to their actual magnitude. On the contrary, I am willing to own that, taking Ben Nevis at 4370 feet, our impression from it is not multiplied by quite so much as three when we behold an Alp known to be 13,000. When we look, moreover, at the Staubach, and are told that that misty cascade falls directly from a rock as high above the place where we stand as the top of Arthur's Seat is above the plain at its foot, we do not receive the impression of altitude which we would expect. The mental eye seems to get accommodated to the new scale on which all nature is cast, and thus, it would appear, there is even a kind of disappointment inevitable to all fresh visitants of the Alps. Yet no such feeling ever tells or can tell upon them, as the actual appearance of all objects is far more than enough to solemnify and delight any mind of the least sensibility. We may lose much, because, in fact, we can nowhere get into a position where the whole mass of any part of the Alps may bear upon our sense at once; but still, whether we wander under the shades of those mighty hills, or pass over any part of them, whether we survey them from some elevated peak, or from some distant point—such as Vevay, or Berne, or even the Jura—we must confess, with hushed and awe-struck spirit, that our ideas of external nature are receiving an extension which might almost be said to double in a moment all the former experiences of a life.

The Alps may be comprehensively described as the central eminent ground of Western Europe, a fact clearly enough indicated by the descent of the affluents of the Rhone, Rhine, Danube, and Po from the midst of them, each to fall into its own sea. It has been discovered of late years that they do not form what may properly be called chains of mountains, but rather groups surrounding certain centres, these centres being generally granitic, while the outlying hills are for the most part composed of ancient stratified rocks, tossed up into all sorts of inclinations. The most careless

visitor observes the bed form of many of the mountain masses, the strange contortions to which strata have in some places been subjected, like the foldings of an ill-put-up piece of cloth in a draper's warehouse, and that we owe many of the prominent peaks to the hardness of some of the vertical strata, while neighbouring beds have been wearing down under the influence of the weather, and from other causes. There are, however, formations connected with the Alps, as high as the chalk and even the tertiary, and thus it has been ascertained that they are comparatively *young hills*—younger than the Pyrenees, younger than the Scottish hills, and even the Mendips—having necessarily been thrown up into their present arrangement subsequently to the deposition of those modern rocks. I somewhat startled a party of ladies and gentlemen in an *Interlaken pension*, by one evening quietly mentioning this deduction of M. Elie de Beaumont, which may certainly be regarded as one of the most interesting results of scientific investigation developed in our time. It was with no wish to exaggerate the very natural wonder of our tea-table, but in the hope of kindling a love of or reverence for science, that I proceeded to advert to the fact, that all these strata had originally been detrital matter deposited at the bottom of the sea; that, as proof of this, my friends might find the shells of sea animals (nummulites) on the top of Mount Pilatus; and that it might be said of several of those overpowering hills themselves that they had been built up to the praise of the Creator of heaven and earth by the immediate agency of animalcules, limestone being regarded as a detritus from coral reefs. It is surely as well to know a few such particulars when one goes to see grand sights; for while it would doubtless be pedantic to analyse the Alps geologically at every step, there is no necessary incompatibility between a sense of their picturesque effects and the apprehension of a history of their formation, which is even more of a marvel than their astounding magnificence.

The Alps spring from a general level of country, which is far from low on the side of Switzerland; at least it is generally very much above the elevation of any inhabited ground in Scotland, Wales, or any other part of the British Islands. Coming from a land where 800 feet gives an ungenial climate even in valleys, we are somewhat surprised to find Swiss villages looking sufficiently comfortable at 2500 feet, and even more. A great part of the surface, however, ranges between 1200 and 1500 feet, and here the vine grows with tolerable luxuriance in the less-exposed situations. The vast abundance of wood and water throughout the whole country—the former extending up the hills to 6000 feet—the profusion of quaintly-fashioned wooden houses scattered everywhere almost as high as the trees; the exquisite economy of the people, giving to the whole landscape

a trimness which reminds one of gentlemen's parks in England—these things, even without the gleaming broad-bosomed lakes, or the peaks shooting up amongst the everlasting snows, would make Switzerland a delightful country for a rambler. Everybody, however, travels with some leading idea in his mind respecting the country which he visits. Mine in Switzerland was—the glaciers. I had pored over Saussure's speculations on this subject in a family copy of the *Encyclopædia Britannica*, with which I formed acquaintance in early boyhood; and since then, the more surprising speculations of Agassiz, and the accurate deductions of Professor Forbes, had deepened my interest in the subject. It therefore appeared an essential part of my visit to Switzerland that I should form some sort of personal acquaintance with the 'ice-falls' of the Alps.

It was early on one of the sunshiny days of the beginning of September that our party left their excellent quarters in the Hotel Berg at Geneva, and proceeded in the Sallenches diligence along the valley of the Arve on their way to the neighbourhood of Mont Blanc. The road, after leaving the skirts of the lake, passes over an elevated alluvial plain, bordered by ranges of low hills, and intersected by a deep though narrow valley, in which runs the river. Here comes the first intimation of the snow of the Alps, for, the water being so strangely milky or turbid as to provoke inquiry, the stranger is informed that it is so from the infusion of pounded rock which the glaciers wear off the hills in their descent. The first few miles present no other wonder, besides the massive alluvial terraces bordering the river, and along which the road proceeds. It seems difficult to conceive, yet it is unquestionably true, that these are composed of gravel brought down from the Alps, and which water has been concerned in depositing; the intermediate space having once been filled up, so as to make the whole one floor of small matters extending from side to side of the valley. At a place called Cluses these features are no more seen, at least in the same degree; and we then begin to traverse a narrow part of the valley, with sides of prodigious height and boldness; also to get peeps of the monarch of European mountains, though it is still a good way distant. After thirty-six miles of the coach, we have to transfer ourselves, at the small town of Sallenches, into a light rude vehicle called a *char-a-banc*, fitted for the more arduous character of the fifteen miles which remain. This portion of the journey is along a narrow road of no exemplary sort of construction, over which we are understood to be driven by the most civil and good-natured of charioteers; while in reality every one possessing any benevolence, and the use of his limbs, feels forced to walk; the ascents being such as almost to defy horse-power. It was not till evening was closing in that we began to get under the shade of Mont Blanc and his associates, and approached the end of our journey at Chamouni. I never shall forget how I was impressed, a few miles short of this point, by seeing a vast whitish projection from one side of the valley, and learning that it was the *Glacier des Boissons*, one of the outlets of the great snow-field which covers the mountain. The intrusive character of these stupendous ice-rivers was thus strikingly seen. It descends through a long hollow in the side of the mountain, far far below the line of perpetual snow, through the midst of woods and verdant slopes, and starts a mile or more into the valley, where smiling farmsteads and villages sit securely by its side, as knowing that thus far it may come, but no farther.

The village of Chamouni, into which we drove after dark, is a curious establishment, as we may call it, being a place existing almost solely at the dictation of human curiosity, and composed exclusively of inns, guides, naturalists, and others making a business and a livelihood of Mont Blanc. Lying 3425 feet above the sea, inaccessible to the sun's rays for some months of the year, and enveloped in snow from October till May, it must be at some cost that the people adhere to it as a residence. The hotel-keepers actually desert the place in winter, having no customers to speak of, except in the months between June and an early period of autumn. Yet these hotels are at once very good, and far from extravagant in their charges; and while all are tolerably neat buildings, there is a new one preparing which would be styled handsome in any part of the world. It is curious to observe the groups of guides and other loungers in the street, and to hear their conversation wholly turned upon the amount, character, and appearance of the visitors; who is in this inn, who has just come to that; the prospects of the weather for the ensuing day with reference to its suitableness or unsuitableness for excursions; nothing thought of but what appertains to travellers and their enjoyments. There is no struggle, however, to appropriate business among the strangers; for a public officer sees that each man, and even each mule, gets employment in strict rotation, and according to a fixed scale of charges. Of this I had an amusing proof next day when setting out for the mountain; for having determined, ere a quarter of a mile from the village, to give up my mule, and take to my feet, while my lady companion should ride, and our guide having taken back the animal accordingly, we soon after saw him returning with the same animal, together with a companion; he having now been reminded that this horse was the one next in rotation for employment. He had therefore to shift the lady's saddle to the horse which I had formerly ridden, and to send back her horse with his companion, to whom it probably belonged. They might adopt such regulations with advantage at Killarney, and some other places at home and abroad.

It was the first night after that of full moon, and the sky was without a cloud. Having rested a little while, and obtained some refreshment, we stepped out upon a balcony overhanging the garden of our hotel (*Hôtel de Londres*), and there found a scene of mystic sublimity prepared for us. Near one of the upper peaks of Mont Blanc—I think the *Dôme du Gouté*—the luminary was perched, throwing a bright light upon those lofty summits, and upon much of the more distant landscape. But the mountain face opposite to our position was a wall of darkness, which it almost appeared we might stumble against if we should advance much farther towards it—and so overwhelmingly lofty! This, assuredly, if so commonplace an expression may be tolerated, was a sight never to be forgotten. On the ensuing evening we had it repeated with little variation, besides one which gave a curious change of effect; namely, a fire lighted by some shepherd, which blazed faint and remote on the front of the wall of blackness, much like a fire balloon on the face of a dark cloud. It was difficult to suppose that this fire was not less than 3000 feet above us, and perhaps three miles distant.

At an early hour next morning I set out with one of the ladies in my charge, and a guide, to ascend to a point on Mont Blanc well known as the *Montanvert*, which is deemed a favourable spot for examining the celebrated glacier of the *Mer de Glace*. The lady, as already hinted, rode a mule, while I determined to walk. The sun was coming to his strength as we crossed the

here infant Arve, and commenced the ascent of the first slopes, which we found covered by little farms, and bearing much wood. A rough path, zig-zagging up the steep acclivity, ascends very nearly 3000 feet, and to master this ascent requires between two and three hours. To me it was a great exertion: to my lady friend the mule ride was something more, as every now and then the animal was passing along rude cliffs, where a false step might have endangered life. We bore it, however, with exemplary fortitude. And here, by the way, I may mention that our guide—a worthy, kind-hearted fellow, Pierre Cachat by name—described the English ladies as by far the most courageous and energetic he had anything to do with in his profession; the French the least so. It was near mid-day when we reached a rude small house of stone and lime, the auberge of Montanvert. Gladly did we enter to rest and obtain some refreshment in its humble salle, where already a few pedestrian excursionists had assembled. This post derives its whole importance from the spectacle on which we look down from its windows, the magnificent Mer de Glace. It afforded a convenient lodging to Mr Forbes during his laborious investigations on that glacier in 1842; and the tenant, David Couttet, points out with pride a flattering attestation in favour of the house and himself inscribed by the learned professor in his album. Certainly nothing could be more homely than the whole place, and yet one can readily imagine its appearing even comfortable to one who had forced himself to abide for a time in such a wilderness. Plain, too, as it is, it was built as an improvement upon a mere cellar, which had existed before from the days of Saussure, but which is now reduced to be only a receptacle for lumber. It was curious, at the height of 6242 feet on the skirts of Mont Blanc, to find a small merchandise of jewellery and nicknacks carried on; but such is the fact. Honest David has a few glass-cases containing bijouterie, chiefly composed of the crystals and pebbles brought down by the glaciers from the central and inaccessible places of the Alps, for such is one of the strange functions of these icy currents. One is surprised to learn that the house, with some neighbouring grazing-ground, pays 1400 francs by way of rent to the *commune* of Chamouni.

We now addressed ourselves to a more particular observation of the glacier and neighbouring scenery, under the care of our guide. The Montanvert is simply a station on the west side of the long-descending hollow through which the glacier descends, and about two hundred feet above the general surface of the ice. As nothing at the place reminds one specially of winter, but, on the contrary, every bit of clear space bears herbage and wild-flowers, it is with curious feelings that we look down this rapidly-sloping valley, occupied from side to side with a still flood of white ice, to which we can see no extremity either up or down. A most startling sight it is to those who have seen nothing of the kind before; the colour a bluish-white, and the surface greatly diversified, as if the mass were composed of a vast huddle of pieces, presenting their sharp ends upwards. The breadth is here about a mile; and on the other side there is a rough face of the mountain, surmounted by two enormously lofty peaks—the Aiguille du Brocard and the Aiguille du Dru—while in some hollow parts rest great patches of ice. It is awful to sit in the quiet of the desert and hear the silence now and then broken by avalanches of stones and snow falling from those eminences. We felt much interested in catching up, amidst the confusion of still objects on the distant mountain-side, a flock of sheep driven by two or three men. So distant were they, that it was all the eye could do to make them out; yet with patient observation we could trace them moving in a faint line for a considerable way, at one place crossing a precipice which we should have thought presented no footing even for such animals. These grazing-grounds are, it seems, cut off from access for cattle by any ordinary paths, and accordingly it is necessary, at particular sen-

sons of the year, to take the cattle thither, and to bring them back again, by crossing the glacier each time. The difficulties of this passage are said to be extraordinary, and the sight of the cows hauled by the peasantry with ropes, or moving cautiously through paths formed in the ice with hatchets, is one which no one can forget who has seen it.

Having descended the hill-side under the Montanvert, and crossed the ridge of rubbishy matter which borders the whole length of the glacier, we at length stood before that grand object itself, the blue-white wall of which seemed in some places to be as high as a house above our heads. It was not without some difficulty that a place was found where we could conveniently ascend upon the surface of the mass. When we had done so, and gone onward a little way, I became fully sensible of the great inequality of the surface, which may be said to resemble that of the earth itself, ranges of eminences being interspersed with hollows, through which streams pour along much as they do through ordinary valleys, while here and there occur fissures and pits, into which water pours to be seen no more. Thus it is not at all a still scene in reality; but, on the contrary, we hear a continual trickling, as if the mass were rapidly melting; while a certain sustained cracking noise, and sounds as of the tumbling of pieces within internal caverns, betray the progress of destruction still more palpably. The general mass is of intense purity, and of the beautiful colour hinted at; but at many places along the surface it is charged with mud and stones, some of the latter being of huge size. These foreign matters are the spoils of the mountain, either fallen in avalanches, or worn off from the surface by the grinding action of the glacier itself. It is their accumulation at the sides which forms the ridge just mentioned; and at the bottom there is usually a skirting of similar matters—in the one case called a lateral, and in the other a terminal *moraine*. There have been various theories as to the movement of glaciers, Saussure thinking it a uniform sliding of the whole mass through the simple force of gravitation; while Messrs Charpentier and Agassiz believed it to be owing to a dilatation of the mass through the freezing of the waters which intrude into the fissures. While others went on theorising, Mr Forbes proceeded by himself, with instruments, to make exact observations of a testing character, and quickly discovered the remarkable facts, that the glacier, like a river, moves fastest in the middle, that there is never a freezing of the intruded waters to any depth, and that it moves nearly at the same rate by night as by day, and in winter as in summer, though whatever increases its fluidity promotes its motion in some degree. From these observations, and others on the internal structure of the ice, which he published, to the discomfiture of the native philosophers, he thought himself entitled to lay down the theory, now generally embraced, that a glacier is 'an imperfect fluid, or viscous body, which is urged down slopes of a certain inclination by the mutual pressure of its parts.' It was a beautiful investigation, pursued with unabating ardour, as it has been narrated with consummate precision and eloquence. The rate of motion of glaciers of course depends in some degree on the inclination of the trough in which they lie: that of the Mer de Glace, in the lower part of its course, may be roughly estimated at an average of 500 feet per annum, which is about the third part of the rate of motion of the point of the hour-hand of a common clock. Such also is the rate at which the lower end of this glacier melts off, otherwise it could not maintain the same place, which it does with remarkable uniformity. Mr Forbes found, at a higher point in the Mer de Glace, some fragments of a ladder which had been used forty-four years before in the expeditions of Saussure, and which in the interval had moved along 16,500 feet, being at about the rate of 375 feet in the year, or a little more than a foot a day. He has hence formed a calculation which forcibly seizes the imagination. It has been mentioned that huge blocks of stone are

brought down on the surface of the glaciers from the upper parts of their courses, and finally deposited in the moraine or residuum of rubbish at the bottom. In the case of the Mer de Glace, twenty miles intervene between the one extremity of its course and the other. A block may therefore be only now laid down in its final rest at the foot of the glacier, which began its onward course so long ago as the reign of Charles I.\*

An inevitable result of the motion of a glacier is the wearing of its trough into a state of smoothness. Every projection is softened and rounded away. Even small hollows experience the attrition, and become in time perfectly polished. At the same time, little stones which have melted their way through the mass till they become *set* in the downward face, like the glazier's diamond in its frame of wood, scratch the smooth surfaces. Thus a part of a hill where a glacier moves, becomes sensibly distinguished from all other parts. I have already mentioned, as a result of this mechanical procedure, that the water which flows from the extremities of glaciers is turbid through a charge of impalpable dust which has been worn away from the mountains—exactly as a grinding-stone soils the water in which it moves.

After spending some time upon the ice, and examining, as well as I could, its many curious phenomena, I returned to the bordering ridge, where we were shown a natural cave formed by a huge slab in connection with other migratory blocks. Over the entrance were inscribed the words, 'POCOCK AND WYNDHAM, 1741,' and we were told that it had actually afforded shelter to these travellers when they were preparing that account of Mont Blanc which first attracted the attention of Europe to its wonders. Some of our fellow-visitors now prepared to set out on excursions into the farther recesses of the mountain, which are admitted to be well worthy of attention from young and active men, and, under good guidance, free from any serious danger. I was forced, however, to content myself with what I had seen, and accordingly commenced the descent towards Chamouni, which our party easily reached before dinner.

Next forenoon, under the care of Pierre Cachat, whose gentle and obliging manners won my regard in a degree not known in similar relations in this country, I devoted a few hours to the examination of some other marvels of the glacial world. It is always an interesting part of the examination of a glacier to see its lower extremity, in the centre of which there is usually a deep vault, out of which flow the pale waters arising from the melting of the ice. In the case of the Mer de Glace, this stream is large enough to bear a distinct name—the Arveiron—though it quickly pours itself into the main stream of the valley. The moraine is another feature here worthy of attention. It lies at the distance of a pistol-shot from the actual present extremity of the glacier, the ice having shrunk back so far within the last few years. A hamlet nestles almost close under it, the inhabitants of which were threatened with the destruction of their houses in 1820, in consequence of the glacier having that year become unusually elongated, so as to throw the moraine almost upon them. This vacillation in the extent of glaciers, to whatever cause it is owing, has a narrow range; but there are memorials of the range once having been much greater. The valley of the Arve, though several glaciers descend into its left side, has now no glacier itself. It is remarkable, however, that just a little way above the point at which it receives the Mer de Glace there is an ancient though broken-down moraine crossing it, showing that at one time a glacier occupied the main valley down to this point. A mile farther up there is another such formation, the memorial of a later termination of the same glacier. There cannot be a doubt of these mounds having been moraines, for they are composed of the usual mixture of

glacier spoils, including huge angular blocks. They of course record two distinct stages in a change from an ancient state of things to the present, though whether this change was merely one of temperature, or of some other conditions affecting the amplitude of glaciers, it would be difficult to say. It is important to observe that a side glacier—the Glacier D'Argentiere—comes in about a mile above the first of the two mounds, and another side glacier—the Glacier de la Tour—about the same distance above the second: marks of the diminution of the ice in the two cases respectively. Between the presently-forming moraines of these side glaciers and the ancient moraines in the principal valley, there is no trace of lesser or more imperfect deposits of the kind, so that we may infer there having been no intermediate stages of change. Two changes alone had taken place, and they took place at once. It is interesting, however, to observe that the space in each case left vacant had for some time been the seat of a lake, in consequence of the moraine forming a dam across the valley. The traces of this are particularly clear in the space above the lower ancient moraine. We first see the moraine itself—and it cannot be much less than a hundred and fifty feet high—cut through for the passage of the river, the bed of which is still full of its vast blocks, while many others have been scattered along the vale towards Chamouni. Then, looking within the barrier, we readily perceive a range of terraces, three in number, rising above each other along the sides of the valley, each being the memorial of a certain level of the ancient waters, and the whole thus implying that the barrier had broken down at three stages, before the river had been allowed to flow freely through. It is worthy of notice that the uppermost terrace is somewhat above the general level of that part of the ancient moraine which distinctly projects across the valley, from which it may be inferred that some portion of the general elevation of that rampart was worn away before the lake experienced its first great subsidence. This group of terraces becomes the more striking, in as far as nothing of the kind can be traced along the sides of the valley for many miles downward. They therefore stand out very clearly as the proof of a lake having once been produced in this place by what we may call the general glacier of the valley of the Arve.

I had on this occasion a pleasant excursion over lofty hills, and alongside of profound ravines, to Martigny in the valley of the Rhone. This valley is composed of lofty ranges of half-naked hills, with a smooth alluvial floor between, the whole of which is more or less liable to be overflowed. The plain slopes with the fall of the river, and is no doubt formed by it. With the interruption of a narrow space at St Maurice, it continues all the way to the Lake of Geneva. In my rambles about this district, I nowhere saw anything more remarkable than what are called the *Blocks of Monthey*, a natural curiosity occurring about two miles below St. Maurice, and probably ten above the lake. Lying on the plain itself, the village of Monthey is backed by a mountain which somewhat projects into the valley, and on the face of this eminence, perhaps from two to three hundred feet above the village, there is a belt of enormous blocks of granite extending along for upwards of a mile—a phenomenon almost unique in the country, and apparently the theme of much rustic wonder. These blocks are of all sizes up to the bulk of a pretty large house, some detached, some resting against each other, some curiously poised on their angles, so as to afford shelter for shepherds and flocks underneath them. One is actually so large, that a small house surrounded by a little garden has been quaintly built on the top of it. The wonder is, that these rocks, all different from the hill, which is of secondary formation, must have been brought from some of the central parts of the Alpine range, many miles off. I afterwards visited the better-known kindred phenomenon on the face of one of the Jura hills above Neuchâtel, where, amidst many lesser granite blocks,

\* See 'Travels Through the Alps of Savoy and other parts of the Pennine Chain, &c. By James D. Forbes, F.R.S., &c.' 1843.

there occurs a huge one well known under the name of the Pierre-a-Bot (said to measure seventy feet in one direction); but though the wonder of the transportation of these stones from the same original seat is increased by the greater distance (seventy miles as the crow flies), they form a spectacle much less impressive than the Blocks of Monthey. Both sets of objects, however, play an important part in one of the boldest theories of modern science.

It is now about a dozen years since attention was attracted by M. Venetz, and other Swiss savans, to certain appearances which seemed to indicate an extension of glaciers in ancient times far beyond what has here been described. Some miles down the valley of the Arve from Chamouni, near Servoz, the most careless traveller might be struck by the smoothed state of the rocks by the wayside, as if some mechanical agent had passed over them in the direction of the valley, and worn down every inequality. It is scarcely less surprising, high up above the Mer de Glace, to observe the smooth faces of the precipices, and also to detect remnants of ancient moraines resting on the mountain-side, as if the glacier had once risen to five times its present ordinary height. Such markings are seen in many parts of Switzerland, where glaciers do not now exist. They are also traceable in our own country; for example, in the valley of Llanberis in Wales. In that case it is impossible to doubt that glaciers had once descended from the skirts of Snowdon, and, pressing through this valley, had polished off every inequality up to a certain height. This is a very curious fact, as it cannot be accounted for without supposing some great though temporary reduction of temperature at the time when the appearances were produced; and the question arises, If there were such a reduction of temperature, how would it affect life in the regions where it prevailed? Some geologists, headed by M. Agassiz, have gone beyond all common bounds in theorising on this subject. Agassiz himself started the idea, that permanent ice once covered the northern hemisphere down to a low latitude, and was thus the cause of the distribution of loose blocks over the north of Europe. It was, according to his followers, a period of universal death, not long antecedent to the appearance of man on the earth, and connected with the remarkable absence of fossils from what is called the Blue Clay or Diluvium. It has been thought by others besides the Neuchâtel professor, that at least the Alpine ice once extended to the Jura range, and was thus the means of carrying granite blocks from the central mountains, and depositing them on that range, and likewise on the hill above Monthey, such blocks being held to be, in fact, remnants of ancient moraines. In 1840, M. Agassiz and Dr Buckland, in a tour through Scotland, thought they beheld ancient moraines at the mouth of every little side valley which they chanced to pass, and they hesitated not to account for the terraces of Glenroy by supposing two glaciers to have once dammed up the adjacent valleys so as to form a lake. It is only of late that we have begun to recover from the astonishment excited by the first burst of these theories, and to see that they rest on very insufficient bases.

In the first place, the idea of a circumpolar glacier constantly expanding outwards and carrying débris to low latitudes, is put an end to by Professor Forbes's discovery, that ice does not move by dilatation, as M. Agassiz had assumed. Then, as to even the limited hypothesis, that glaciers proceeded from the central chains of the Alps to the flanks of the Jura, carrying thither huge blocks, it has never yet been shown how they could proceed in such a course, with no sufficient slope to produce their movement, and with lines of hills intervening to obstruct it. Assuredly ice is never seen to move in such circumstances at the present day. The idea of Mr Forbes, that a glacier came down the valley of the Rhone, makes a less demand on our credulity, and some circumstances might be adduced in support of it. For instance, above St Maurice, I found faces

of rock at the bottom of the hills on the south side smoothed exactly like those of Llanberis. At the narrow gorge at St Maurice, where these smoothings might, if anywhere, have been expected, they are not to be seen; but a low hill, occupying the middle of the valley immediately below this gorge (between St Maurice and Bex), is smoothed on many parts of the surface, as if a glacier had passed over it. I nevertheless deem it a violent hypothesis to suppose that any glacier could be of such volume as to fill up the Rhone valley to a point between two and three hundred feet above the site of Monthey—a point perhaps not less than a thousand feet above the rocky bottom of the trough of the valley, and this at a place where the whole space is several miles wide. A glacier, to fill such a space, and to such a depth, must have been enormous beyond all credibility.

It seems much more likely that the usual theory of transported blocks—namely, that they have been carried by icebergs upon the seas formerly intervening between their native seat and the places of their ultimate deposition—is the true explanation of the marvellous erratics of Monthey and Neuchâtel. As far as I am aware, evidences of the former presence of the sea at high levels have not as yet been sought for in the Alps; yet, if they were, they would not be difficult to find. I was particularly struck by the alluvial terraces at Vevay, above the Lake of Geneva, only a few hours' journey from Monthey. They have been spoken of as moraines, which they do not in the least resemble. They are undoubtedly the remnants of sloping sheets of common river detritus, deposited by the little river of Vevay in the sea when it stood at different relative levels from the present, and which had been afterwards cut through by the river when the relative level was lowered. The highest of these terraces which I measured (and there are traces of others somewhat higher) was fully 442 feet above the lake, which is the same as 1670 feet above the present level of the sea. Now this is just about the elevation which I would assign to the Monthey blocks;\* so that beyond all question we have evidence of the former existence in the Rhone valley of a body of water at about the height required in order to float these blocks to their present situation. When the water stood at this height, an estuary would penetrate pretty far up into the valley. The glaciers might come sufficiently far down to send off masses into this firn, bearing the usual charge of blocks from the central heights. As these passed along towards the open sea, they would be extremely apt to land upon the Monthey hill, which projects so remarkably into the valley. Such may be the true history of the deposition of the Monthey blocks.

For some additional evidence to the same effect, I may advert to a curious study in physical geography presented in the Bernese Alps. The Lake of Lungern—occupying the upper part of a valley between Lucerne and Interlaken—has been in recent times reduced upwards of two hundred feet in height, for the sake of the land on which it stood; and we thus have an opportunity of observing certain natural arrangements connected with such bodies of water. As often happens, the chief inlets of water into this lake were at its upper extremity. There two or three rills descending through rough passages in the hills joined it, each bringing a *talus* of stony débris, over which it had in ordinary times passed by a slightly-hollowed channel on its way to the lake. Now that the waters have been lowered, we can see the terminations of these *tali* coming to a sudden stoop, a little way within the line of the

\* Monthey village is set down in Keller's map at 1350 French feet (1437 English feet) above the sea. If the blocks are 250 feet higher—and I should think the bulk of them about that height—they are scarcely above the elevation of the great terrace at Vevay. It may be remarked that Professor Forbes speaks of these blocks as possibly 500 feet above the village; but under the benefit of some recent experience in the study of heights, I feel convinced that this is much above the truth.

ancient shore, showing that it is not the tendency of such formations to spread equally out under the water. But what is more curious, the streams, in consequence of the withdrawal of the water which had received them, have cut down through the *tali*, and now pass on to the abridged lake through little valleys, with a terrace on each side; no longer able to affect the surfaces of these formations, which were originally their own work. This is a result which appears to depend on the force which running water exercises on the fore-edge of any formation over which it falls. Each of these little rills, on being no longer quietly received into the lake, had begun to tumble over the stooping face of the now dry *talus*, gradually cutting it down and backwards, as the St Lawrence wears the rocks at Niagara. From this single observation, I read off the interpretation of all such ancient alluvia as those which have been mentioned as skirting the immediate banks of the Arve between Geneva and Salanches. They were once, in the form of an entire sheet of alluvium, the bed of the river. This alluvium would have continued in its original form for ever, had the dynamics of the river not undergone a change, which could only happen in consequence of the withdrawal of some recipient body of water, when at length the stream would begin to cut down its bed. The terraces of the Arve valley are thus a proof that the Arve was once received directly by some body of water, most probably the sea, instead of, as now, flowing into the Rhone. Such is but an example of objects seen in many other valleys, and which have generally had the same history; \* memorials they for the most part are of the former presence of the ocean at a relative level above the present. Such proofs in the case of the Arve have the peculiar value of serving as additional evidence that the sea once rose in the Rhone valley to the height of the Monthey blocks. The zone of boulders at Neufchâtel is higher (said to be about 2500 feet above the sea); but the explanation, if established in the one case, will equally apply to the other.

It thus appears that, though there are appearances of change in the glacier world, there is no need to go beyond reasonable bounds in speculating upon the subject. The Glacial Theory, as it was called, had a brilliant run of a few years; but, like some fairy palace of that unstable material, it is now seen lying in a dismal state of ruin. The whole history of it may still serve a useful end, as a warning to men of science. Blocks are seen in singular situations—we know of no vehicles for their transport but glaciers: *ergo*, glaciers, &c. Behold, however, another agent in time casts up, much more likely! Smoothings of rocks are seen in high situations; they resemble those effected by glaciers: *ergo*, once more glaciers! But by and by, it is shown that icebergs carried on the sea along rocky coasts will produce such smoothings,† and there has even been found evidence that the smoothed rocks in certain districts are at the particular heights where the surface of the sea formerly was in those portions of the earth.‡ Alluvial masses and terraces are seen at the openings of the glens of Scotland and Ireland, and are at once pronounced to be identical with ancient moraines; therefore they form evidence for the glacial theory. Subsequent examination shows these objects to be of a wholly different character, the detritus laid down by rivers in the sea. It would be almost cruel to dwell any longer on the rash assumptions hazarded on the most superficial observation at the first blast of this unfortunate theory. Let us hope that it will be long before another

set of ingenious men go off upon so false a scent, or prepare for themselves such humiliating reverses.

More than fearing that I may have tired many of my readers, and yet hopeful that a few of these observations may assist in promoting the advance of an interesting science, I now bid adieu to Switzerland. R. C.

#### THE TRAMP.

Among the bulky folios which are from time to time 'presented to both Houses of Parliament by command of her Majesty,' it very rarely happens that we can discover anything likely to attract the notice of the general reader. These 'blue books,' as they are usually termed, with reference to the colour of the envelope, are notoriously dry, tedious, and uninteresting. Occasionally, however, productions make their appearance which are decided exceptions to this general rule, and the 'Report on Vagrancy' will be found of this nature. It contains much to interest, and certainly much to reflect upon.

Most persons must be familiar with the appearance of certain miserable beings who, from their pedestrian habits, usually bear the name of Tramps. We see them filthy in person, and covered with tattered garments; yet are they not emaciated, nor have they in general an impoverished aspect: they exhibit, in fact, none of the usual evidences of stunted nourishment. We probably hear their story, and watch them limp along until they pass out of sight; and then, mayhap, our thoughts stray to other subjects, and never recur to this until our attention is recalled to it by a like incident. The haunts and the habits of the tramps remain for the most part utterly unknown to us.

The object of the publication referred to is to throw light on this matter, and to open out to the view of the legislature a full and perfect picture of the life led by vagrants. It contains a vast amount of evidence, collected with much care from various authentic sources. The information is diffuse, scattered throughout many documents, and encumbered with figures and details, the sight of which might serve to deter many from entering on its perusal. Our present object is to extract the essence.

The vagrant appears to be a being *sui generis*. He is purely a rambler, but he differs in a marked degree from other itinerants, such as the hawker, the gipsy, or the distressed artisan travelling in quest of employment. He has no known place of abode, no ostensible way of maintaining himself, and he lives by begging and plunder. It rarely happens, however, that he commits any flagrant delinquency; and indeed whenever acts of this kind are perpetrated by him, it is found that the main object in view was to obtain the shelter and medical care of a prison, so as to rid himself of some noxious disorder contracted by his mode of life. His profession, in fact, is that of a habitual pilferer.

It appears that there is an incredibly large multitude of such wanderers distributed throughout England and Wales. They have, it seems, become established as a class, owing mainly to the mode of administering relief to the casual poor under the new poor-law. Perpetually migrating from one locality to another, they are provided with houses for their accommodation by the different Unions, commonly called *tramp-houses*. These stations are in general only about ten miles apart, and hence the journey from one to the other is accomplished without inconvenience during the day's march. At each house a bed is provided, and in some a breakfast, for which consideration the attempt has been lately made to exact a certain amount of work. It was naturally supposed that, by requiring from each lodger a fixed portion of labour before he set out anew on his day's journey, some check would be placed on the rapid increase in the numbers of habitual tramps who simulate destitution. It is found, however, after considerable experience, that such is not the case. Obstinate, determined, and combined resistance to the officials who attempt to impose work, has become very general; and it appears that the expenses incurred in the necessary arrangements for en-

\* There is a distinction to be drawn between these sloping alluvia and the horizontal terraces which are occasionally seen along the sides of valleys. The latter are to be considered as the results of a wearing of the sea on the hill-sides at their respective levels.

† See a paper by M. Von Waltershausen, Edin. Philosoph. Journal, July 1848.

‡ See several examples adduced in 'Ancient Sea-Margins, &c.' 1848.

forcing task-labour far outweigh the value of the work accomplished. The materials furnished have in some instances been wantonly destroyed; a serious outbreak has taken place; and the master of the tramp-house has, from sheer inability to adopt any other course, allowed his riotous visitors to depart on their own terms. It appears, moreover, that even the roughness of the lodging and coarseness of the fare provided do not counterbalance the inducements which the certainty of sustenance and shelter holds out to the dishonest vagrant.

Let us now take a hasty glance at the general character and habits of this class of persons, concerning whom so many important facts have been lately brought to light, not only by the publication of the Report in question, but also by the laudable efforts of those philanthropists who have laboured to establish schools for the ragged and destitute. There is little doubt that the younger members of the community, who are snatched up and brought into such seminaries, belong to one and the same class. They have not yet reached the period of life when the desire for travel and adventure is excited; and, moreover, they are in all probability as yet ignorant of the abundant provision made for wayfarers throughout the country. They are content to remain in their native locality, and to put up with such night accommodation as is afforded by the warm brick-kiln or the hollow park-roller. In taking a view of the present condition of these dregs of society, both young and grown up, we have no desire to speak of them with extreme severity; we are inclined to think that in some there are to be found traits calculated to excite a feeling very different from contempt. In these a spirit of enterprise and capability for bold adventure may have found originally a fitting field in extensive rambles and daring resistance to those who endeavoured to place restrictions on their career. With a dash of the imaginative in their composition, and a fondness for the wild or grotesque, they may at first have entered on their course of life from a feeling of the grateful excitement it afforded; and the debased, dare-devil, care-for-nothing recklessness which we now see, may be the result of gradual contamination. Like the educated collegian who, when gratifying a desire to penetrate unknown regions, contracts a liking for the free erratic life of the aboriginal inhabitants, and prefers it to civilised conventionalities, so these poor fellows may have lost all relish for honest, painstaking, and regular industry.

The ages of the persons who thus take advantage of the provisions made by law for the really necessitous range between eighteen and thirty-five: very few have passed beyond their forty-fifth year. About one-fifth are females, who may in general be classed among the very lowest of their sex. It is stated in the Report that 'the distinction between the unfortunate and the abandoned among women is greater than among men. I conclude from what I have observed, that the proportion of really destitute women in the tramp-wards (generally widows with young children) is greater than that of men, probably from their physical ability to brave the cold night wind being less, and their tenderness for their children inducing them to seek shelter even at the expense of vile association. Such a mother have I seen: she was sitting in a corner of the ward, with her two children, shrinking as far as possible from her companions. Her cheap but decent mourning showed her to be newly widowed. She told me her husband had been a butcher's journeyman in London, and had lately died, leaving her penniless; that she was going to her friends in the north of England to get assistance in keeping the children, and so leave her hands free for work. She asked for some water to wash her infant, and I shall not readily forget her look of disgust at being offered the only vessel, a dirty broken basin, just used by the Irish mothers for the same purpose. She said she herself would rather lie in a kennel, and that the struggles she had felt for three nights between exposing her children to infection, and bringing them to workhouse shelter, were breaking her heart.'

Many pictures more touching than this might doubtless be drawn, were these abodes more frequently visited

by those who are capable of sketching the nightly scenes they present. It appears that the moment the hardy tramp reaches the door of his hotel, he puts off his whining and supplicating air, and assumes a clamorous and bullying carriage, lording it over the keeper of the house as if he were some menial destined to serve the distinguished traveller. Within doors his habits are highly filthy and indecent; he is uniformly noisy, and indulges in the use of abominable language. The early part of the evening is usually relieved in singing boisterously the most improper songs; and it often happens that a succession of stories of depredation and theft are related by the respective occupants of the apartment. It may be easily supposed that such narratives find ready listeners, and prove most instructive lessons in vice and crime. The English is said to be far worse than the Irish tramp in all these respects. There is one very strange and singular dislike which characterises these people—namely, a thorough aversion to cleanliness. Although the general numbers are steadily increasing, yet it is found that in those houses where the inmates are compelled to take a bath on admission, the numbers have greatly fallen off. In the Bedale Union, the average has been reduced by this means from sixteen to six.

It is surprising to find how rapidly intelligence respecting the peculiarities of particular houses is telegraphed throughout the community. It soon becomes known at which places an immersion in water is a prelude to a night's lodging. Various pieces of information, which are specially interesting to the brotherhood, are regularly passed forward, and immediately acted upon. 'In the North Witchford Union, for example, it happened that two months ago the stock of junk for oakum picking became exhausted. In the very next week, the number of vagrants, which had previously averaged about twenty per week, increased to forty-five; in the second week to fifty-seven; in the third to seventy-five; and then, oakum picking having been resumed, the number as readily decreased, till it reached the usual average.' The best quarters become known to the fraternity; and there is no doubt they discuss the respective merits of different accommodations pretty much in the same way as commercial travellers are in the habit of doing in regard to different hotels. They are systematic in their route as well as in other procedure. The fashionable seasons at watering-places are extensively known, and observed accordingly, with a view doubtless to profitable mendicancy.

There is evidently a good understanding between the members of the regular corps; and this has reached such a height, as to lead now and then to a combined resistance to the authorities. Indeed so common are such temporary organisations becoming, that whenever the regulations of the Board of Guardians are opposed with success, the general expression among them is, that they have 'beat the Union.' This term they apply not only to acts of combined violence, but to any scheme whereby the plans adopted to check vagrancy may be defeated. A general order was issued some time ago, requiring that each applicant for a night's lodging should be searched to ascertain if he had money in his possession; and if it appeared, from the amount discovered, that he was not an object of charity, to refuse him admission. This order is regularly defeated in two ways. In the more-frequented districts, such as large towns, it is usual to appoint one of the members a banker, who, remaining in a lodging-house, receives their deposits at night, and returns them the following morning. In the more remote and country localities, the little sums of money are generally secreted in the ground by the wayside, which can easily be accomplished under the cover of night. At Stafford, a hedge near the vagrant-house has been nearly destroyed, owing to the convenient hiding-place which the bank affords to the tramps. Other ways of 'beating the Union' are devised to suit particular circumstances. If a fellow wants to improve his wardrobe, or to obtain a residence in a comfortable prison, he at once annihilates his nether garments. He cannot with decency be turned adrift: and the two alternatives are left, either to supply him

with clothes, or to commit him. Practices of this kind appear to be more frequently noticed in winter than in summer. It is a season when either better clothing or a shelter from inclement weather in a jail becomes a boon.

The life led by the horde of tramping vagrants who now infest the country not only is the cause of a vast spread of moral contamination, but it is also the means of disseminating the class of contagious diseases. The awful prevalence of low fever, for instance, which was so general last year, is mainly to be attributed to their agency. Their habits give rise to affections such as these, which are at once conveyed and distributed over the whole country. Few are entirely free from traces of skin disease, and vermin of all kinds find an undisturbed settlement on their persons.

Some idea of the rapid increase which has taken place in the numbers of tramps may be formed when it is stated that, in 1845, they ranged considerably below two thousand; and that, on the 25th of March 1848, they amounted to upwards of sixteen thousand! Indeed so numerous do the applicants for a night's lodging become, that in some places the accommodation provided has been found quite inadequate, and stables, outhouses, and even tents, have been fitted up to meet the emergency.

It is evident that the danger of fostering, increasing, and perpetuating such a class is great, and requires to be met vigorously and judiciously. Inconceivable evils must necessarily arise from the congregation of a large number of persons of the lowest and most profligate character in a state of destitution, filth, and disease, without sufficient means of separation, classification, and systematic treatment. Much mischief has already been done by circulating the vices of the city through the rural districts, and by exciting a contempt for the law and its punishments. The evil is growing rapidly; and great as it now is, and difficult to grapple with, it will only become greater and more difficult by delay. Several remedies have of late been proposed. It has been suggested to abandon entirely the casual relief. This, however, would be a hardship on the truly unfortunate. Some further inquiry appears desirable, with a view of ascertaining which are the real tramps, and to this end the passport system might with advantage be adopted. It is stated by Mr Boase, as his opinion after all his inquiries and experience, that 'at least ninety out of every hundred occupants of the tramp-houses have no claim on the honest poor man's fund.' As long as the relief is thrown open, a temptation to imposition must exist; and the more this becomes known, the more will it be abused. Instances like the following will increase to a frightful extent:—In one of the tramp-houses in North Wales was found a veteran sweeper of crossings in London. He had become tired of his monotonous vocation, and having heard of the good accommodation provided throughout the country, he took the fancy to travel, and was actually carrying out his intention at the expense of the public.

We have already stated our impression that many of these characters are endowed with qualities which, if rightly directed, would place them in a very different position. Our brief summary may perhaps conclude appropriately with the following letter, showing the mental qualities of a notorious vagrant, who is now enduring his thirteenth term of imprisonment as an incorrigible rogue and vagabond. The letter is addressed to one of his comrades, and the handwriting is excellent:—

'DORSET COUNTY JAIL, December 27, 1847.

MY DEAR FRIEND.—You will remember my promise of writing to you, which I will now endeavour to fulfil. You are no doubt aware that I am committed for trial at the Sessions on a charge of vagrancy, for being found sleeping in a stall belonging to Mark Sherrin the butcher. I do not know what the issue of that trial may be, but I expect a term of imprisonment, and a corporal punishment by flagellation. The magistrate who committed me told me no effort on his part should be wanting to serve me, of which I have no manner of doubt. It seems a pleasure to him to have an opportunity of vomiting his

waspy and dyspeptic spleen at me; but I am invulnerably proof against it. The dastardly pitiful schemes he has recourse to only serve to add to his disgrace, and to protract the immortality of his shame. I suppose Mark Sherrin means to carry on the crusade which his deceased brother so long and so unsuccessfully waged against me. He had declared eternal war, but was cut off in a moment, "and sent to his last account with all his imperfections on his head." And who knows the destiny of the immortal spirit! It may be, for aught we know, imprisoned in all the hellish perpetuity of confinement, in those doleful regions where Ixion for ever turns his wheel; and where Tantalus in vain endeavours to slake his everlasting thirst with the water which eludes his lips; where Sisyphus, with unavailing labour, rolls up the stone which eternally falls back; and where Tityus feels the vulture incessantly preying on his heart, which, as fast as it is devoured, is again renewed. But methinks I have indulged in an unwarrantable and uncharitable strain. The pertinent remarks of the poet rush across my mind, who says—

"There is a spell by nature thrown  
Around the voiceless dead,  
Which seems to soften censure's tone,  
And guard the dreamless bed  
Of those, who, whate'er they were,  
Wait Heaven's conclusive audit there."

—QUARLES.

'My dear friend, please to give my respects to the indomitable Mr Aldous, and to Master Robert England, to Charles Edmunds, and to his copper-coloured majesty, James King of Thornford, likewise to your brother John, and most especially to your father and mother. I owe them the debt immense of endless gratitude; never can I forget their generous kindness to me when I worked for them on the railway. I omitted to tell you that I had been at Yeovil for two days previous to my apprehension. Davis, the man I went to London with, called upon me at Sherborne, and wished me to accompany him to Plymouth; but to this I could not consent. I promised to go as far as Exeter, but did not intend fulfilling my engagement: we stayed together two days in Yeovil, when I gave him the slip: he would not stay an hour in Sherborne—the reason of this is obvious; so you see, in striving to escape the whirlpool of Charybdis, I struck upon the rocks of Scylla. And now I must close my epistle: farewell, my valued friend, for the present; and believe me to remain, with the most sincere regard and respect, yours faithfully,  
GEORGE ATKINS BRINE.

'P. S.—Davis is become an itinerant quack-doctor, and has a hopeful shoot with him (a son of the Emerald Isle), apparently about sixteen or seventeen.'

## THE PURSUITS OF LITERATURE.

JOHNSON says of Pope that 'it is pleasant to remark how soon he learned the cant of an author, and began to treat critics with contempt.' This, however, was before he suffered in his own person; for no one felt the lash more keenly than Pope, or knew better how to inflict it upon others. His own 'Dunciad' proved the power of criticism to extend much farther than mere irritation; for Ralph, one of its subordinate heroes, had no sooner obtained that unlucky eminence, than the booksellers suddenly discovered his incompetence, and the poetaster was in danger of starvation. This catastrophe was brought about by two lines:—

'Silence, ye wolves! while Ralph to Cynthia howls,  
Making night hideous: answer him, ye owls!'

In our own day, John Keats—himself the victim of savage party criticism, though not to the extent usually supposed—attacked in a still more bitter manner some of the classical poets of our language, the followers of the school of Pope:—

—'But ye were dead  
To things ye knew not of—were closely wed  
To musty laws lined out with wretched rule  
And compass vile; so that ye taught a school

Of dolts to smooth, inlay, and chip, and fit,  
Till, like the certain wands of Jacob's wit,  
Their verses tallied. Easy was the task:  
A thousand handicraftsmen wore the mask  
Of poetry. Ill-fated, impious race,  
That blasphemed the bright lyrist to his face,  
And did not know it; no, they went about  
Holding a poor decrepit standard out,  
Marked with most flimsy mottoes, and in large  
The name of one Boileau!

Who were these mechanic-poets? Byron answers, Johnson, Goldsmith, Rogers, Campbell, Crabbe. And who more? He goes on: Gifford, Mathias, Hayley, Thomas Brown, Richards, Heber, Wrangham, Bland, Hodgson, Merivale, and 'others who have not had their full fame, because the race is not always to the swift, nor the battle to the strong, and because there is a fortune in fame as in all other things!' This is a curious catalogue: Goldsmith, Crabbe—Hayley and others, like the mortals and immortals jostling in the *Iliad*! Byron is scarcely cold in his grave when the very names of most of his poetical heroes are forgotten, while that of one Keats, the presumptuous 'tadpole of the Lakes,' is inscribed in the same enduring scroll (above or below it?) with that of the author of *Childe Harold* himself!

It is curious to observe the impartiality of time, and the utter futility of any attempt to sway its judgment. Critics are the exponents of their own opinions—it may be even of those of the *day* in which they live; but another generation—perhaps another year—reverses their decrees without ceremony. Critics themselves change with the changing time. In 1816 Byron wrote 'unjust' under the most prominent of the literary portraits he had drawn in 1809: such as

'That mild apostate from poetic rule  
The simple Wordsworth—  
Who both by precept and example shows  
That prose is verse, and verse is merely prose.  
So close on each pathetic part he dwells,  
And each adventure so sublimely tells,  
That all who view the "Idiot in his glory,"  
Conceive the bard the hero of the story.'

It is to be regretted that the noble bard did not live long enough to do like justice in the case of another poet. His 'Vision of Judgment' having been published only two years before his death, Southey remains in it a 'renegade' and an 'ass' to this day; terrifying both seraphim and cherubim, and the shade of George III. himself, with his 'spavined dactyls.'

'The monarch, mute till then, exclaims "What! what!  
Pye come again? No more—no more of that!"'

The imitation of Peter Pindar here may serve to connect these odd 'judgments' with the last satire of the last century. Byron, like Pope, and before him Dryden, was instigated by personal malice or revenge; but Mathias seems to have been a political enthusiast, who ran full tilt at Revolution, and had so little physical courage to support him, that he passed all his after-life in agonies of terror. The 'Pursuits of Literature' was first published in 1794, just after the French had decreed by law that there was no future existence; and so well did it hit the time, that six editions were sold in the next four years. Among the first notes is one on Peter Pindar, not meant to illustrate the text, but brought in, head and shoulders, on a mention of his Theban namesake. Mr Mathias scorns to waste a verse on such a character, but tells us in homely prose that Peter's 'rooted depravity and malignity of heart' are beyond modern satire, and that posterity—if it can be supposed that such trash as his works shall exist—'will be astonished that the present age could look with patience on such malignant ribaldry.' He is not less severe on Proteus Priestley—

'Who writes on all things, but on nothing well;'

but relapses into a smile as he treats of Bishop Wilkins' 'Discourse concerning the possibility of a passage to the moon,' which method of translation he considers a happy thought in a bishop. Of the same sort is Darwin's notion, that it would be very feasible to direct

the winds by means of philosophy; and to him the following problem in physics is submitted, for which our author is indebted to Pantagruel:—'Whether the hybernal frigidity of the antipodes, passing in an orthogonal line through the homogeneous solidity of the centre, might warm the superficial convexity of our heels by a soft antiperistasis?' Gilbert Wakefield has so much vanity, virulence, asperity, insolence, and impudence, that literature begins to be weary of him; and Gillies, the historian of Greece, is 'feeble, formal, dull, and tame.' The latter judgment serves to introduce a story about Gibbon, a historian of a different kidney. Soon after he had published the second and third volumes of his 'Decline and Fall,' the late Duke of Cumberland accidentally met him, and desiring to pay him a compliment, said, 'How do you do, Mr Gibbon? I see you are always at it—the old way—scribble—scribble—scribble!'

Our author soon after commemorates as a poet a neglected gentleman of the name of Penrose, who, it seems, had the misfortune to die a curate, and be buried in a village tomb. Mr Mathias piously preserves the titles of his works. He passes a judgment on Hayley and Darwin, which the present day has confirmed, and then touches upon the works of fiction which delighted the old age of the last century:—

'Or must I tempt some novel's lulling theme,  
Bid the bright eye o'er Celestina stream;  
With fabled knights, and tales of slighted love,  
Such as our Spanish Cato might approve.'

The 'Spanish Cato' was the then Earl Camden. The Roman Cato learned Greek at sixty years of age, that he might read its romances; and our venerable lord chancellor, after having exhausted those written in English, French, and Italian, applied himself to Spanish, to obtain a recreation for his closing years. The English novelists of the day were Mrs Charlotte Smith, Mrs Inchbald, Mrs Mary Robinson, Mrs &c. &c. who, 'though all of them ingenious ladies, yet are too frequently whining or frisking in novels, till our girls' heads turn wild with impossible adventures, and now and then are tainted with democracy.' He makes one exception, however: 'Not so the mighty magician of the "Mysteries of Udolpho," bred and nourished by the Florentine muses in their sacred solitary caverns, amid the paler shrines of Gothic superstition, and in all the dreariness of enchantment—a poetess whom Ariosto would with rapture have acknowledged, as—

—'La nudrita  
Damiella Trivalzia al sacro speco.'

It is curious to think that Mrs Radcliffe was really the best novelist of that time, only fifty years ago! If Earl Camden remained now alive, he would have no occasion to resort to any other language than his own; but if recalled to life, without having undergone the mental training of the intermediate half century, it may be a question whether he would not turn away with weariness from our present romantic literature, and seek his first loves in the dingy recesses of the circulating libraries.

Mathias now attacks a novelist who formed a school of his own:—

'Godwin's dry page no statesman e'er believed,  
Though fiction aids what sophistry conceived;  
Genius may droop o'er Falkland's funeral cry—  
No patriot weeps when gifted villains die.'

A scholar next:—

'Who now reads Parr? whose title who shall give?  
Dr Sententious light, or Positive?  
From Greek, or French, or any Roman ground,  
In many progress and eternal round,  
Quotations dance, and wonder at their place,  
Buzz through his wig, and give the bulk more grace;  
Words upon words! and most against their will,  
And honeyed globules dribble through his quill,  
Mawkish and thick; earth scarce the tropes supplies,  
Heaven lends his moon and crowded galaxies;  
Polemical frenzy, and irreverent rage,  
And dotard impotence deform the page.'

In these days we do not feel much interested in Parr; but a note to a name of another kind is worth quoting. The text is—

'I cannot, will not stoop with boys to rise,  
And seize on Pitt, like Canning, by surprise.'

'As posterity,' says our author, 'may know little of this young gentleman, I shall add that Mr Canning was first an Eton boy, then wrote a little book of essays, then went to college, was then made M.P., and after some tuition and instruction from the accomplished George Rose, Esq., became one of the under secretaries of state.'

Southey is spoken of as a young gentleman, author of many ingenious pieces of poetry. 'He gave the public,' says Mathias, 'a long quarto volume of epic verses, "Joan of Arc," written, as he says in the preface, in six weeks. Had he meant to write well, he should have kept it at least six years. I mention this, for I have been much pleased with many of the young gentleman's little copies of verses. I wish also that he would revise some of his principles.' He laments that Beattie 'never finished his exquisite poem;' to Robert Burns, 'the Ayrshire ploughman—an original poet,' he gives a line; and Cowper he classes with the Muses themselves on Parnassus:—

'There did they sit, and do their holy deed,  
That pleased both Heaven and earth.'—*Bishop Hall.*

'But whence that groan? No more Britannia sleeps,  
But o'er her lost Masons bands and weeps.  
Lo! every Grecian, every British muse,  
Scatters the recent flowers and gracious dews  
Where Mason lies. He sure their influence felt,  
And in his breast each soft affection dwelt  
That love and friendship know; each sister art,  
With all that colour and that sounds impart,  
All that the sylvan theatre can grace,  
All in the soul of Mason found their place!  
Low sinks the laurelled head; in Mona's land  
I see them pass: 'tis Mona's drooping band,  
To harps of woe in holiest obsequies.  
"In yonder grave," they chant, "our Druid lies!"'

It is not merely curious, but instructive for one generation to refer to such records as these of the passing opinions of the preceding one. But, while denying the power of criticism to influence permanently the fate of literary productions, we are quite sensible of the effect it has on the personal destinies of authors. There has been more than one Ralph starved by a couplet. The book-sellers are not likely to be mistaken on such a point, and they are sensitive to criticism to a downright absurdity. The 'opinions of the press' which they nervously append to their advertisements (taken, perhaps, from some obscure provincial newspaper, which would have given a verdict doubly stronger in return for two presentation copies) are extremely amusing—and they are likewise extremely melancholy. When Johnson talked of the cant of authors in despising critics, he knew very well that the bread of authors depended upon it; although he likewise knew that their *works* were in a different position, and that after the petty influences of the passing hour were at rest, they would stand or fall by their own merit. This distinction is not usually drawn; and we would counsel authors, who cannot afford to wait for the verdict of posterity, to suppress any manifestations of the contempt they may feel for contemporary criticism. At the same time we would counsel them to reserve and cherish in their own minds their *right of appeal*; to look forward with a high and holy confidence to a later judgment; and by keeping their eyes fixed on fame, in contradistinction to mere reputation, to enjoy the best and loftiest privilege of genius.

The conclusion of the 'Pursuits of Literature' is as follows:—

'Here close the strain: and o'er your studious hour  
May truth preside and virtue's holiest power!  
Still be your knowledge temperate and discreet,  
Though not as Jones sublime, or Bryant great;  
Prepared to prove in senate or the hall  
That states by learning rise, by learning fall;

Serene, not senseless, through the awful storm,  
In principle sedate, to shun reform;  
To mark man's intellect, its strength and bound,  
Nor deem stability on change to found;  
To feel with Mirabeau that "words are things,"  
While in delusion's ear their magic rings,  
Through states or armies, in the camp or street,  
And now a school revolts, and now a fleet.  
Go, warn in solemn accents, bold and brief,  
The slumbering minister or factious chief;  
Mourn proudest empires prostrate in the dust,  
Tiaras, fanes, and pontiffs, crown and bust;  
And last, as through the smouldering flames you turn,  
Snatch the Palladium, though the temple burn.\*

## THE FINANCE OF RAILWAYS.

Of late, some remarkable statements have been made respecting the financial condition, present and prospective, of railways. Although these statements may to a certain extent have emanated from parties having an interest in the depreciation of railway property, there is, unfortunately, too much reason to believe that they have a foundation in truth, and it is therefore proper that they should not be passed over with indifference. The assertion is broadly made, that pretty nearly the whole railway system has been founded on, and is now supported by, deception. Taking advantage of a mania for speculation, the directors of the various railway companies have, it is alleged, got up undertakings on the most fallacious calculations as to revenue; have throughout conducted their affairs in a spirit of reckless gambling; and to support their schemes in the market, so as to induce parties to pay calls on shares and make loans, have habitually presented fallacious balance-sheets. Such are the charges at this moment brought against the stupendous railway system which has grown up in the country during the last few years. In this, as in many other things, the innocent are apt to suffer with the guilty, the prudent with the imprudent; and to allay public excitement, nothing could be more desirable than a really trustworthy investigation into, and exhibition of, the affairs of all the railway companies.

The whole history of the railway mania discloses the unquestionable fact, that the parties who entered into engagements to take shares rarely did so with any other view than to sell at a profit. On this account, it is not matter of surprise that the country should have undertaken to make far more railways than there was money to pay for, or that the last holders of shares should be in the unpleasant predicament of finding no one willing to relieve them of their responsibilities. Considering the vast benefits which railway transit was likely to confer on the country, it is deeply to be deplored that a thing so advantageous, and in itself so noble as a result of human intelligence, should have been degraded into an instrument of gambling and social ruin. On looking at the summary of railway legislation from 1826 to 1847, it is observed that during that period of twenty-one years, the number of acts passed was 889; the money authorised to be raised was £326,643,217; and the length of lines to be constructed was 12,481 miles. The account is said to have lately stood as follows:—

Total amount of money authorised to be raised,	£326,643,217
Amount nominally raised or called up, to the end of September 1848,	195,317,106

Liabilities still resting on the public in respect of railway projects not completed,	£131,336,111
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Of the above £195,317,106 annually raised or called up,

\* We do not know what may have been the case in the last century, but in the present day the concluding image is sometimes used so improperly, that perhaps our readers will hardly think it an impertinence if we say that the Palladium was a statue of Pallas, with which was linked the destiny of Troy. It was enshrined in a temple without a roof, and so long as it remained uncaptured, the city was safe.

it appears that only £148,400,000 have been paid; therefore we arrive at this fact, that the money actually sunk on railways in the United Kingdom during the past twenty-one years is a hundred and forty-eight millions, while the money still to be raised during the next six or eight years is about a hundred and seventy millions—a thing utterly impossible. It is further mentioned by railway statisticians, that of the £148,400,000 paid, £17,200,000 are lost or unproductive, leaving a productive capital of £131,200,000. The revenue from traffic on the railways representing this capital, during the past half-year, amounted to £4,722,719, and the working expenses to £2,341,770, leaving a profit of £2,380,949, or £1. 16s. per cent. for the half-year, or £3. 12s. per annum on that capital. It has been usual to estimate that the working expenses of railways would absorb from 30 to 40 per cent. of the revenue; but experience has shown that at least one-half of all the money drawn for traffic requires to be paid for working the lines. On lines of the greatest length and largest traffic, for which most capital has been sunk, it does not appear that a profit of more than from £3. 10s. to £4 per cent. per annum is actually realised, or ought to be paid to shareholders. Yet these lines are represented as paying dividends of £7 or £8 per cent., and shares in them have been eagerly purchased accordingly! Whether any line of railway could possibly be made to pay seven, or even five per cent., there are little means of judging, because the directors of the great lines, on which there is the most productive traffic, have not kept to their proper business of working their own lines, but have entered into heavy engagements, in guaranteeing high rates of interest to the proprietors of adjoining small lines, or have spent capital in making unproductive branches. It may indeed be said that the fundamental error in railway enterprise has been the purchasing and leasing of insignificant lines at prices unwarranted by prospective profits; by this means alone, the bulk of the money advanced has been dissipated and lost—a result, however, not at all singular in commerce; for men are every day seen to squander the profits of one good speculation on a hundred which afford them no substantial return for either trouble or outlay.

But in raising capital by a creation of fresh shares for branch or extension lines, directors, we regret to say, are accused of something worse than imprudence. It is pointedly alleged that they created these shares in order to speculate on them for their own private advantage. It will be for the directors of the principal lines to repel, by unquestionable evidence, this grave charge: at present, the testimony is all against them. According to a statement in the 'Times' newspaper, October 12, the traffic on some of the leading lines, with that on their projected branches, is greatly below what is inferred by the dividends presently paid. For example, to pay seven per cent., the London and North-Western would require to draw for weekly traffic £70,000; but the average has hitherto only been £44,000. The Great Western would require to draw £52,703; but the average is only £20,269. The London and South-Western would require to draw £27,893; but the average is only £8,899. Whether, on the opening of the connecting branch lines of these railways, the traffic will rise to the sums respectively indicated, is extremely doubtful. In the absence of any data to guide us, we would not say the thing is absolutely impossible; at the same time we should fear that the expectation of any such great increase from the opening of branches now in progress rests on an insecure foundation. What, however, is the alternative? Are we to believe that the respectable body of men constituting the directors of the leading railway companies—men generally standing at the head of commerce in their respective localities—are practising a fraud on the country, or are themselves deceived from an ignorance of accounts? Until evidence more conclusive is produced, we must suspend our judgment on a matter so delicate, and

repeat that it is incumbent on the directories in question to relieve public inquietude by an intelligible statement of their affairs. To stand aloof, and resist the importunity for disclosure, on the ground that the public has no proper right to pry into private affairs, will only aggravate the evil. It may even be alleged that the existing alarm has originated in a wish on the part of directors to depreciate their own stock, in order to buy in while shares were low; thus giving an additional hue of fraud to a character sufficiently damaged. But an injury more palpable will ensue. Such will be the want of confidence, that no railway company will be able to raise loans by debenture; and we think that the public in this respect will act with proper discretion; because, for anything at present known, the bulk of the railways may be already mortgaged for larger sums than can ever be realised by their traffic, or than have been sanctioned by acts of parliament. What is the aggregate amount of money now lent on debenture it is difficult to say. By one authority it is stated at £30,000,000; but by another it is said to be as much as £70,000,000; and if this latter sum be correct, shareholders may almost make up their minds to seeing so much of their property swept from them by mortgage-holders; that what they have already paid will be as good as lost beyond the power of redemption. That in these circumstances they will discontinue paying calls, if it can be at all avoided by any sacrifice, is more than probable. And thus the vicious circle is completed.

From the indistinct fears prevailing on these various points, shares have lately sunk in an extraordinary degree; and no one can tell where the depreciation is to stop. 'The only panacea (says a writer in *Heraclitus's Railway Journal*) to avert this wholesale devastation of railway property, is at once to cease making calls, stop the works as speedily as possible, make no further calls during the present year. Confine the total amount of calls on railways during the whole of the next year, 1849, to £6,000,000; that sum will be ample to finish lines nearly completed, and to open them for traffic. Reduce the rate of interest on loans to 4 per cent.; that is, not to borrow money in future at a higher rate than 4 per cent. per annum, and there will be plenty of money to do what is requisite.' So far well, but something else is wanting. What that is, need not be repeated in our own words; we prefer the language employed in a recent article in the 'Times':—'The "balance-sheet" of a railway company has now no more effect than a sheet of waste paper; and as it would be perfectly easy to give accounts which would make everything clear, and these accounts are not given, it is naturally inferred that the market would not be benefited by the prospect they would indicate; and hence that, although the end cannot be known, there is a certainty, at all events, that it has not yet been reached. The public hear of meetings of the heads of the leading lines to devise means to stay the ruin. There is only one measure wanted, and that is, the publication of accounts that shall be unmis-takeable. If there is a single railway that is considered by its directors to have fallen too low in the market, they can set the matter right. There are plenty of shrewd people at this moment, notwithstanding the hardness of the times, waiting with money in their pockets to find investments. Give them a statement such as they would require, and such as any city accountant, with the materials at his command, would prepare in a form that the simplest tradesman might understand it, and forthwith they will bid within a fraction of the true value of the shares. So long as such statements are kept back, while it is at the same time notorious that every other available effort is being used that can be used to arrest the fall, there can only be an increase of distrust. Several months back, the companies resisted the appointment of a public auditor. Had it taken place, it is probable the end would by this time have been arrived at. As it is, it may easily be seen that until the books of each concern shall have been

thoroughly sifted by some wholly unbiassed person, it must be vain to hope for any permanent mitigation of the terror that now prevails.

P.S.—Since the above was put in type, several companies have made statements which have allayed popular fears, and sent stock up in market: the exposition, though perhaps not altogether what could be wished, is an example worthy of imitation.

#### PLAIN PEOPLE.

It is hardly fair to introduce the hero of our tale as belonging to the above-mentioned class, without in the first instance ascertaining whereabouts the announcement will place him in the estimation of our readers. We fear that with some who would not for worlds be classed under the same denomination—young ladies, for instance—he will be put down at once as an unfortunate being, afraid to take a peep at his own face in the glass, or venture a glance at his own shadow as it intrusively escorts him along the wall. Then, again, there are others who perhaps know the world a little better, and they will pronounce him one who deems himself privileged to say all manner of disagreeable things under the aspect of candour; while haply there are some who, not thinking too much of themselves, not knowing too much of the world, will find some corner of the heart warming up at the phrase; some gentle recollection of a quiet old aunt, or old bachelor uncle, living long ago, and far away, in generous contentment; always ready to do a good turn, or think a good thought, without making a fuss about it.

If such be the idea at last conjured up, we need not fear to proceed on our introduction, though far from engaging that the present instance will in any degree equal the example we have recalled, or even that such 'plain people' exist at all in the world we have now. Indeed when first we knew Arthur Murray—and that is not very long ago—he was the last person amongst our acquaintance to whom we should have thought of assigning the character; much more readily would we have supposed him sitting for the reverse of the picture; a young, and, as yet, untried lawyer, with more brains than briefs; dandified, elegant, exquisite, somewhat given to satire and paradox; ready to play on each word; to make the worse appear the better reason, and the better seem the worse. No one who then knew him could either, in praise or in censure, have called him a 'plain person'; and most assuredly he would not have admitted the impeachment himself. And yet there was something in the way in which he went to pack up his trunk for the journey he was now about to make with a country client whom he had obliged on some professional matter, and who in return invited him down to his place during vacation, 'to have a shot at the snipe'; something hopeful in the tone with which he repeated his friend's instructions—'Be ready by two o'clock, and we can travel together: just put up two or three shirts, with your shooting-jacket, and your powder and shot; you will want nothing else, for we are all plain people down there'; and something in the manner in which he laid aside his dress-coat, and selected in its stead a garment beyond chance of injury from packing or use, which might lead us to fancy that some trace of character, such as we have glanced at, survived even amidst his later acquisitions.

In perfect ignorance of the locality he was to visit, and the people he was to meet, beyond the intimation conveyed in the foregoing rather ambiguous phrase, Arthur soon found himself trying to draw an augury from the discourse of his companion; and then inwardly repeating, 'Plain people—if all the rest are like him,' as he vainly endeavoured to give an agreeable turn to the self-sufficient remark, or dogmatical opinion, following closely on the heels of each other, and always prefaced or concluded by a phrase which seemed to have

attained the virtue of an axiom, to cut short all discussion, silence all argument—'I am only a plain man, but that is my view,' all others being of course indirect and inconclusive, unworthy the attention of any clear unbiassed mind. And Arthur at last could hardly refrain from laughing, as subject after subject was thus arbitrarily nipped in the bud, and as the ignorance or prejudice of his companion took the tone of superiority, and asserted the triumph of natural candour over professional training and *finesse*.

He had not travelled many miles of his way when, half repenting of his undertaking, he arrived at least at one conclusion—that the plain man by his side was a tyrant at home, and that even his own independence would be a doubtful matter while he ventured to remain; he was accordingly quite prepared to see the household still as mice on his arrival, or ready to fly to the ends of the earth at the first sight of their master. He was rather agreeably surprised, therefore, to find himself received in a comfortable dwelling, where the furniture, well-used and well-kept, seemed coeval with the house, and the house itself with the trees that surrounded it, and the quaint garden in front; and to find its mistress aptly representing the whole. Orderly and motherly, she exactly realised his ideas, and silenced all his misgivings by her fearless cordiality towards himself, and her glad welcome to her husband.

All is just as it should be, thought Arthur: 'The good man has been only showing off a little to bring down my conceit;' and he laughed at the conceit himself, remembering that he had attempted to show off in the beginning; when his conclusions were again upset by the entrance of a lady, whom Mr Watson at once introduced as his sister, adding the somewhat unnecessary information, 'A regular old maid.' Plain enough, again thought Arthur, though, for his own sake, as well as the lady's, he would just as soon it had not been so plainly expressed. He read at a glance that the individual in question included him in the annoyance such a remark was likely to inflict; but he also read in the silence with which it was received, and the illbittered expression which now seemed habitually to rest on features that once must have been pretty, that there was nothing unusual in the impeachment, and that the plainness of speech which had already so often disconcerted himself, had also perhaps, without intentional unkindness, in a sort of rough jocularity, torn away all the little illusions which might still have prolonged her attractions, or at least made the inevitable transition more easy.

And then came the children; but here Arthur was again at fault, as during the whole of the next day, when a down-pour of rain prevented his leaving the house, he had to endure their noisy companionship, and try to appreciate the advantages of 'a plain education,' as exhibited with pride by the father of the family. 'I give them practical habits, and train them, like myself, to look straight at their object, speaking out their minds at all times freely and plainly, without fear or reserve;' and then walking off with perfect complacency, his guest had an opportunity of witnessing the result of this one-sided lesson in polite speeches such as these: 'That's a lie for you, Emmy;' and 'I hate you, Johnny;' while screams, and scratches, and bloody noses, continually formed a running accompaniment to the words; their aunt flying hopelessly from the room with her hands to her ears; their mother flying in from her household duties with horror in her face; and then the indignant narrative, and the equally indignant retort, ending in the punishment of the entire lot.

'Miss Emmy, don't you play on that piano?' said Arthur after some time, good-naturedly hoping to cause a diversion, and relieve the eldest girl from her sulky sobbing in the corner. No answer at first; but when the question was repeated, there was the father's ownself in the reply—'No, indeed; I do not waste my time with such nonsense.'

'Then who is it for? Who plays on it now?'

'Oh, nobody; Aunt Millicent used, but papa said it stunned him, 'twas a tiresome noise; so she left it off', and unless when Sydney is here, it is never opened now.'

'And who is Sydney?'

'Oh, Sydney is a cousin of ours, that always comes here in the holidays.'

'Yes, and then you must behave yourself, Miss Emmy; Sydney wouldn't let you or any one else play the tyrant,' muttered Johnny from the other corner, where he had been imprisoned at discretion. To avert the storm which was plainly gathering again, Arthur called Johnny over to him, and showing him the book he had been reading, asked if he would like to hear a story.

'No,' replied the still surly boy; 'Papa says them stories are all lies;' and back he stalked to his durance again, leaving Arthur to consider whether the plain people he knew long ago owed any of their excellence to having cultivated a little of the ornament, as well as the sweet charities of life; and how far it is possible to prevent the weeds and the briars from springing up in our hearts, if some little attention be not given to the flowers.

He had fallen deep into this reverie, and, for aught we know, might have arranged an able speech on the subject of national education, when his attention was aroused by a conversation between Mrs Wilson and Miss Millicent, who, taking advantage of the enforced tranquillity, had established themselves at work, unnoticed by him as he abstractedly gazed out of the window. Now, however, a name, from which some prospect of relief had already dawned, struck upon his ear as Miss Millicent exclaimed, 'So, Sydney is to be here to-night; and plain as ever, I suppose: that sort of face never grows either better or worse.'

Another specimen of the genus, thought Arthur to himself; but when, with a slightly-reproachful tone, and a glance to her sister-in-law indicating the presence of a stranger, Mrs Wilson replied, 'I cannot think so; the expression is ever-varying, and yet always so good and so true, that in looking at the features, you forget the face,' he at once felt his levity checked; and mentally applying the words of the speaker to herself, felt how redeeming, even to the homeliest features, was the kindly expression worn by hers at the moment.

Just then Mr Wilson coming in, announced that he had ordered John to take over the tax-cart to meet Sydney at the coach; and Mrs Wilson confirmed the favourable impression she had made all along by gently suggesting that the coach was late, the evenings cold, and it would be much better to send out the chaise; but her husband, in his own peremptory way, cut her short, meeting the objection with his favourite phrase, 'Pooh, pooh; Sydney knows very well we are only plain people, and that I am an enemy to over-refinement and self-indulgence in young people: the sooner they are broken in to rough realities the better—eh, Mr Murray?—instead of being allowed to think, as they do now-a-days, that the world is made for themselves.'

Arthur bowed in silent answer to this appeal; there were some rough realities going on again at the far end of the room, which seemed to him to render any other comment unnecessary.

The evening turned out cold, squally, and showery; Mrs Wilson had been many times at the window to watch the sky; and when at last the curtains were drawn, turned to stir up the fire, saying to herself with a sigh, 'A bad night for Sydney; I wish so much the chaise had been sent.' And again, as Arthur watched the unpretending kindness of her little preparations, and looked at her good-natured countenance lighted up by the kindling blaze of the fire, and the still kinder feelings within, he no longer wondered that her husband, even in his plainest moods, found nothing unpleasant to say to her. He felt his own captious feelings passing away, and found himself involuntarily recur-

ring to the words he had overheard, 'It is not the features, but the face.'

He was just about to make some inquiries as to the person to whom the sentiment had been applied—'What, who was Sydney?'—when the sound of wheels announced that the object of his curiosity had arrived. The children had been allowed to sit up, and apparently appreciating the indulgence, were quieter than usual; but once more, violent and demonstrative as ever when occasion came, they joined in a general rush to the door, leaving Arthur in solitary possession of the fire-side. A noisy welcome Sydney got; shouts of recognition from each separate voice, screams and struggles, as one pushed the other out of the way, for a while drowned every minor sound, until at last a clear, gay, ringing voice rose above the clamour, as if, pitched beyond its ordinary tone, it was determined to make itself heard. Arthur, who in the now deserted room had been listening with some curiosity, felt a slight twitch of disappointment as the clear treble met his ear: he had somehow all along anticipated somewhat of companionship in Sydney—some pleasant associate to take Mr Wilson's place in their shooting expeditions—some relief from the dull truisms to which he was weary of being sole auditor; so now exclaiming pettishly, 'Why, Sydney must be only a child, a mere boy after all,' he threw aside his book, and standing up before the fire, felt ready to take his departure on the instant.

But with a sudden misgiving he listened again: the voice, lower and sweeter now, though still remonstrating, went on to say, 'Stay, Willy; stay a moment until we get off this dripping cloak; no indeed, Johnny, you shall not drag me in while I'm such a figure; I must get rid of all those spatters in mercy to aunt's new carpet, to say nothing of my own appearance before the strange gentleman you tell me is within.'

And again the blithe laugh sounded through the half-open door, as the speaker seemingly resisted all Johnny's rough attentions. We said that Arthur listened with a sudden misgiving: with a sudden though involuntary movement, too, he raised his hand to his coloured cravat, glanced downwards at his shooting-jacket, all unchanged since the vain preparations of the morning; but before the wish was half-formed that he had been more particular in his inquiries, less careless in his attire, or, above all, that the family had for once adhered to their own fashion of plain speaking, the door was flung open, and in came a young lady, grasped on all sides by the children, shouting 'Here is Cousin Sydney' at the top of their voices, and quite superseding the necessity of a more formal introduction, when the elders of the party followed quietly into the room.

And so 'Cousin Sydney' was a girl after all! When the first shock had subsided, that instead of the ally and companion he had made up his mind to expect, presented to his view only a quiet little girl with a countenance cold and repulsive, according neither with Mrs Wilson's kindly remark, nor yet with the musical laugh in the hall which first roused his suspicions, he felt utterly disappointed, and hardly bestowed a second glance on the unpretending figure that had been introduced with such acclamation: pale and cold she looked, her dark dress fastening high round her throat, dark eyes and hair both making her paleness more conspicuous, without one other colour to relieve the darkness—the shadeless white: no waving ringlets, no sparkling smile, no airy step, personified the Euphrosyne so rapidly conjured up in his fancy by that laugh; no gentle word, no cordial tone realised Mrs Wilson's description; but passing him by with a scarce perceptible curtsy, and a very perceptible shiver, she turned eagerly to the fire, while he, muttering to himself, 'Another of the plain people, and decidedly the worst,' turned with an air equally chilling back again to his book.

But the ice began to thaw, and involuntarily he

found himself attending while the sweet voice spoke again, in answer to Mrs Wilson's inquiries, regrets, and apologies about her journey, and the weather, and the conveyance; sweeter and kinder it seemed to grow, as each word tried to satisfy them all. 'Indeed, aunt, you need not say a word; I never travelled more comfortably—trusty old John took such excellent care of me, and I was so delighted to drive in the tax-cart: it was bringing back merry old holiday times again. John said I sprang to the seat lighter than ever; but I could not return him the compliment, for since this time last year he is grown twice as stout again, and afforded me as much shelter as if I sat beside a castle wall.' And for the first time since his arrival, Arthur heard the pleasant tones of domestic harmony, as young and old, without a dissenting voice, chimed in with her merry laugh at burly old John.

He looked up from his book; there were no surly faces; no one was exulting over another; no one was provoked; and, wonder of wonders, two of the children peaceably occupied the same chair, keeping each other steady with encircling arms, that they might be all the nearer to Cousin Sydney, and not miss one syllable of her 'stories of the road.' Had a good fairy alighted amongst them, and suddenly transformed them with a sprinkling of honey-dew, Arthur would as soon have expected pearls and diamonds—as the story runs—to fall from their lips, as the courteous words and pleasant laughter that now broke on his ear; and wondering and inquisitive as to the nature of the charm, he found himself looking and listening as Sydney went on.

'Half-smothered in cloaks, which John would wrap round me, who should I meet when we were half-way but Mr Miller, your rector. How he knew me is a mystery, for there was nothing to be seen but my eyes.'

In spite of himself, Arthur could not help thinking they were likely to be remembered; and, whether his look said so or not, at this point the speaker seemed slightly disconcerted, and the eyes and the cheek certainly brightened a little, as she laughingly proceeded—

'He—Mr Miller—thought I had not defences enough, and wanted to wrap his greatcoat round my feet: but when I declined it, in compassion to his own wants, what do you think he said? It was just such a reason as you would give yourself, dear uncle—"It did not matter for him, but young ladies were made of different stuff!"'

Mr Wilson laughed, and yet coloured a little. Perhaps some memory of the morning's discussion about the chaise rose up to remind him that, however similar in expression, he was very far behind Mr Miller in consideration; and he was honestly about to make some confession of the kind, when Mrs Wilson came to his relief by exclaiming, 'Dear Mr Miller, always considerate; deeds, not words with him: most probably, Sydney, in his humble estimation of himself he quite intended a compliment when he said you were of different stuff: that he intended a kindness we may all be sure.' And Arthur, as again he looked up, could not help feeling some slight curiosity as to whether his glance had a second time anything to do with the brightened colour that fitted so suddenly over her face.

But, strange to say, Sydney had never noticed the young lawyer's glances at all. Unaccustomed to admiration or attention, she neither expected nor sought for it, and was now entirely occupied with her long-parted relations, and with all the little changes that had occurred since they met; and Arthur soon discovered, in this forgetfulness of self, in the warm sympathy she felt for others, and the kindly construction she put on all they said or did, the secret of their improvement under her influence, and her hold upon their hearts. Perfectly unpretending herself, even plain in appearance and attire, there was still an appropriateness in every word and movement that made one feel as if no alteration could improve. She should be altogether different, or exactly such as she was; and perhaps there never

existed a more favourable contrast than—her travelling garb laid aside—her neat gingham dress, just circled round the neck with its snowy linen collar, her dark hair always so smoothly braided, and her fresh happy face, presented, to the fluttering curls, the faded finery, and the still more faded pretensions of Miss Wilson, who always pitied her for her plainness, and yet whose beauty had never been to herself such a treasure as Sydney's unconsciousness of its want.

With equal unconsciousness she had gradually become an object of special interest to Arthur, whose first impressions were quite obliterated, and who found her a far more effectual ally, a far more congenial companion, than the imaginary one she had so suddenly set aside. Indeed a very slight shower made him now pronounce the day unfit for shooting, while a still slighter gleam of sunshine made it quite suitable for a social walk: and almost pleasanter still was it to sit within doors and watch the working of Sydney's innocent spells: the pencil and the needle, the story and the song, superseding boisterous quarrels and mischievous words between the children; while enlisting on the better side the habits of truth in which they had been trained, and the discernment on which they had learned to pride themselves, her example showed them how much happier it was to dwell on the good qualities of their associates than on their failings; that by placing things in a favourable light, they were quite a different aspect; and that the power lay within themselves, far more than they suspected, of bringing matters to their own standard, whether it was a high or a low one.

Many days had not passed when the house hardly seemed the same. It was no wonder that Sydney went straight to the mother's heart; but even Mr Wilson seemed to lay aside his bigotry to his own opinions; his rough manners and maxims seeming to be unconsciously tempered in the presence of her natural gentleness and grace.

'You will spoil those young ones, Sydney,' said he one day with a half-indulgent smile, as he found them all clustered round the table, engrossed in some occupation trifling in itself, but invaluable in its effects. 'You are undoing all my work, creating artificial wants, and making them dependent on others for amusement.'

'Oh no, uncle; indeed we are only trying to amuse ourselves. When we ask for help, send us away. But come and join us, and you will see how successful we have been without any foreign aid.' And playfully squeezing him in between Emmy and herself, she led him, half in spite of himself, to enjoy that dearest pleasure to a father's heart—fellowship in the gladness of his children; creating gladness in himself, even though he had to draw upon sources long despised and neglected—the quick invention, the play of fancy—which alone could enable him to keep pace with the gay circle he had joined.

On Arthur the effect was different, though almost as powerful. To him Sydney still remained one of the 'plain people'; but then she soon became the connecting link between his own fastidious notions and the habits he had learned to despise—'wisest, virtuouslest, discreetest, best.' His satirical tendencies fell asleep for want of ought to arouse them; his ambiguous speeches lost their point before her literal interpretation; and his habit of mystifying, or, as it is vulgarly called, 'quizzing,' disappeared beneath the searching, wondering gaze of her clear dark eyes; until at length he felt himself becoming as matter-of-fact as their frequent guest Mr Miller, and would have relinquished the applauses he confidently expected to follow his next display of eloquence for the tearful smile with which Sydney reiterated a cottager's praises of the sermon, summing them up in one sentence, 'Ah, dear! he puts it before a poor body so plain!'

And so Arthur had just arrived at that state of feeling which we scarce venture to whisper to ourselves, much less like to let others discover, when one day, in reference to some holiday party, Miss Wilson, in Sydney's

absence, commented with some flippancy on her anxiety to go, adding, 'I wonder what pleasure she finds in going into society, plain-looking and plainly dressed as she always is!'

Arthur's first impulse was to utter an indignant dissent; the next moment old habits suggested a more qualified reply, and hesitatingly he had just commenced, 'Sydney is decidedly plain, but'— 'He would have added, 'one never thinks of that'; when, before the words had found utterance, a light step at his elbow made him turn to see Sydney herself crossing the room. For half a second she paused, and when their eyes met, there was something of mournful surprise in her look, something beyond what the mere words could have called up; and though chased away in an instant by a mirthful glance at his own fallen countenance, it awakened a hope, almost as instantaneous, that it was because the words had been spoken by him. But before he could finish the sentence or rally his thoughts, she was gone: and with some effort restraining his anger towards Miss Wilson, whom he could hardly consider the innocent cause of his dilemma, he left the sentence as it was, determined to take the first opportunity of explaining its intention, and thus bring back sunshine to a face that he had never seen clouded before. Cruel man!—cruel words! how often he reproached himself throughout the rest of that day; how often he vowed to speak out his feelings more plainly in future; how often he recurred to that troubled glance, wondering if it had ended in tears, or if it would be turned into anger when he met her again! Vainly he watched and waited through the afternoon hours: whether angry or busy, Sydney did not make her appearance until, when all were assembled in readiness to set out, she entered the room, dressed simply as usual, but never more becomingly, in plain white muslin, with a scarlet geranium in her hair. Arthur approached her, with a look half-penitent, half-admiring, to offer a beautiful rose which he had managed to provide for the occasion. With an ingenuous blush, undoubtedly arising from recent recollections, Sydney frankly accepted it; but he rashly, not contented with this concession, would remove the geranium from her hair, and place the rose in its stead, had not Sydney, evidently thinking this was going too far, retreated a step, throwing her arm above her head to defend the ornament she had placed there.

There was so much of natural grace in the movement; the soft rounded arm formed so fair a frame to the blushing, smiling face, and the expression of that face was so arch, yet so conscious, that even her uncle, for once uttering a flattering truth, exclaimed, 'Really, Sydney, you are growing downright pretty at last!'

'Oh yes!' added Arthur manfully; 'you are very pretty now; but you would look prettier still, I assure you, with my rose in your hair!'

Strange to him was the smile, untinged with the slightest shade of reproach, with which Sydney received a compliment so diametrically opposite to his speech of the morning; but for that passing glance, he might have concluded she had not heard it—but her face always spoke every feeling as it rose—and so, though perhaps slightly disappointed in not having an opportunity of testing the proverbial consequences of a certain class of quarrels, he was fain to believe the offence overlooked in unlimited reliance on his word, whatever it might declare, and in the pleasure of finding the unfavourable opinion so readily retracted. But Sydney's next sentence sent his thoughts in a different channel— 'I believe I never much cared about my looks until to-day, when a doubt arose to be almost instantly satisfied again. I am quite content with them now,' added she, laughing, and blushing still more brightly; 'and in spite of your acknowledged good taste, Mr Murray, shall even stay as I am, the more especially'—and for the first time in her life Sydney spoke the truth with an effort—'as it was Mr Miller brought me this geranium to-day, and he will expect to see it here.'

'And you are quite right, dear Sydney,' replied Mrs

Wilson innocently; 'it would be a thousand pities to disappoint an old friend.'

'Dear me,' exclaimed Miss Milcent, 'what has a plain man like him to do with flowers?'

And that, too, was Arthur's first thought; and then he looked at Sydney, and then he understood it all exactly as she meant he should—knew what had restored the momentarily-disturbed brightness to her face—knew that nothing now could cloud its serene happiness, or make her mistrust her own attractions any more. The tale of affection returned and avowed was in those smiling eyes: the secret of her sudden beauty lay in her gladdened heart; no need to speak more plainly—he knew it all; and even in his first disappointment, there arose a feeling of gratitude for the candour that had sought to spare his feelings at the expense of her own.

He profited by the little lesson; for he not only told Sydney plainly all that had been in his heart when he appeared to depreciate her merits, but from that time forth he never shrank from the honest avowal of his sentiments for the sake of some questionable advantage to himself. He has long been what is called 'a plain sort of man'; but he has become an eminent man too, and he dates his first advance in his profession from the time that his clients discovered he had the courage always to tell them the plain truth, while the circumstances under which he had acquired the habit prevented his ever making it unnecessarily painful.

#### BERNARD PALISSY.

THIS ingenious man began life as a poor boy, and his earliest recollections were those of turning a potter's wheel. From turning a wheel he was promoted to the making of pottery. His native village was Saintes, in France; and he lived about three hundred years ago. At that period the art of making earthenware was in a rude state in France, but enamelling was much advanced; and young Palissy thought he would try to find out how the finish of enamelling could be applied to pottery.

First he set about instructing himself in reading, and every spare moment he devoted to study. But when he had improved himself in these respects, he was greatly at a loss for money. This, however, he earned by his trade, and by drawing plans, for which he had a taste. This money was spent in experiments. While still a very young man, and without any proper means of supporting a family, he married. This was worse than an imprudence; he did not only himself, but others a serious harm. In the midst of great difficulties he carried on his experiments; and these absorbed the means which should have maintained his family. The slightest improvement he succeeded in making in the process was sufficient to inspire him with the hope that he was at last about to reach the goal; and this hope nerved him to fresh endurance. In vain did he endeavour to inspire others with similar confidence. Every day bitter complaints burst from his wife, and frequently did his children join in their mother's supplications, and with tearful eyes and clasped hands implore of him to resume his former occupation, and give them bread. Palissy met the reproaches and prayers of his wife, and the tears of his children, with inflexible resolve and the most imperturbable composure, apparently as insensible as the earth which he was moulding. But was he really thus indifferent? No; there were moments when despair was at his heart! 'Nevertheless,' we quote his own words, 'the hope that I cherished made me work on with so manly a courage, that often I forced a laugh when I was inwardly sad enough.'

Derided, treated as a madman, suspected of being now a coiner and now a sorcerer, he was proof against all. At length a new combination made him believe himself on the very point of succeeding, when a potter engaged in his service suddenly demanded his discharge and his wages. Palissy, having neither money nor credit, was obliged to sacrifice part of his wardrobe to pay him; then, impatient of the interruption, returned to his furnace, which he had constructed in his cellar—returned to it to find that it wanted fresh fuel, of which his stock was exhausted. What was to be done? Upon the baking of this new essay his last hope depends. He rushes out to the garden, tears

away the trelliswork, breaks it up, and the furnace is again heated. But the heat is not to the proper degree of intensity, and in desperation Palissy throws into the furnace his furniture, the doors, the windows, nay, even the flooring of his house. Vain are the tears, the intreaties of his family; wood is wanting for the furnace, and everything combustible that he can lay hold of is remorselessly sacrificed. But now one prolonged cry of joy echoes through the cellar; and when the wife of Palissy, startled by the unwonted sound, hastens to her husband, she finds him standing, as if in a stupor, with his eyes fixed on the brilliant colours of a vase which he held in both hands. Success had crowned his efforts.

Rapidly now did his circumstances change. His success, so dearly bought as it had been, was followed by still greater advances in the art, and he was now at the head of his profession. Wealth flowed in, and his fame spread far and wide. He had several patrons at court, amongst whom was the Comte de Montmorency, who employed him to execute for him some rustic pieces, as they were called, consisting of figures of animals in earthenware. He resided at the Tuileries, opposite the Seine, and was surnamed Bernard of the Tuileries. Nor was he content with the fame of a mere artist, but turned his attention to almost every branch of natural history and philosophy, and is said by Fontenelle to have made as much proficiency as genius without learning could make. He was the first person who formed a collection of specimens of natural history, and gave lectures upon them, to which the public were admitted on payment of half-a-crown, which he engaged to return fourfold should anything he taught be proved false. He wrote several treatises on a variety of topics, full of original and striking thought. He was the first who taught the true theory of springs, and who ventured to assert that fossil-shells were real sea-shells deposited by the waters of the ocean. He also was the first to perceive and recommend the use of marl and lime in agriculture. His ardour and strength of character were not less conspicuous in his attachment to the religion he professed. He was a Protestant, and became exposed to persecution during the time of the League. In 1584 he was apprehended and committed to the Bastille. The weak King Henry III., who rather favoured him, having told him that if he did not abjure his religion for the prevailing one, he should be constrained to leave him in the hands of his enemies, the intrepid Palissy replied, "Your majesty has often condescended to say that you pity me; for my part I pity you for uttering the unkingly words, "I shall be constrained;" but I tell you, in more royal language, that neither the Guises, nor your whole people, nor yourself, shall constrain me, a poor potter, to deny my conscience."

Thus was the same zeal and indomitable firmness which marked his career as an artist carried by Palissy into his devotedness to his higher interests as a Christian. Of his religion and his trade he was wont to say, "I have no other property than heaven and earth." He died in the Bastille in 1589, at the age of ninety.

#### THE GREAT VIADUCT ACROSS THE DEE, IN THE VALE OF LLANGOLLEN.

One of the most daring and stupendous efforts of skill and art to which the railway has given rise, is the great viaduct now in course of completion across the Valley of the Dee, in the Vale of Llangollen, the dimensions of which surpass anything of the kind in the world. It is upwards of 150 feet above the level of the river—being 30 feet higher than the Stockport viaduct, and 34 feet higher than the Menai Bridge. It is supported by 19 arches of 90 feet span, and its length is upwards of 1530 feet, or nearly one-third of a mile. The outline of the structure is perhaps one of the most handsome that could have been conceived, both as regards its chaste style and attractive finish, and its general appearance is considerably enhanced by the roundness of the arches, which are enriched by massive coins, and the curvilinear batter of the piers. This style of architecture imparts a grace and beauty to the structure without impairing its strength. The greatest attention seems to have been paid to the abutments—the only part of the erection, in reality, where any decorative display could be made. In the middle of both, on each side, there are beautifully-executed niches in the Corinthian order, in addition to some highly-finished masonry. The piers are neatly wrought at the angles, and at the base of nearly each there is a bedding of upwards of 460 square feet of masonry. With

the exception of the entradoes of the arches, which are composed of a blue sort of brick, the whole structure is built of beautiful stone, if not as durable, at least equal in richness and brilliancy to Darydale. The viaduct has an inclination from end to end of ten feet, and connects that part of the Shrewsbury and Chester Railway between Rhos-y-Medre and Chirk. Viewed from beneath, the vast structure presents a noble and truly grand appearance, and its bold proportions, with its height, cannot fail to call forth admiration from the most indifferent beholder. The viaduct has been erected by Messrs Makin, Mackenzie, and Braasy, contractors, at a cost of upwards of £100,000, being upwards of £30,000 more than the Stockport viaduct. The cost of the timber required to form scaffolding, &c. for its erection was £15,000, and between 300 and 400 masons alone were employed during the whole time of construction.—*Liverpool Mercury*.

#### LAND OF PLENTY.

In Singapore, with the exception of children and bed-ridden adults, it would be impossible to suffer from starvation: privations are the lot of all; but it must be said for this our tropical region, that an all-kind Providence seems to have opened her stores most lavishly for the use of man; he needs neither to toil nor spin, and yet, like the lilies of the field, he can be fed and clothed. Every cleared spot that is allowed to run into jungle furnishes leaves of various kinds that can be used in curries or in stews. The common *Ubi kayu* gives a delicious arrowroot, and this plant is found as a weed, and used as a fence; in all parts, the clady (*Arum esculentum*) that springs up indigenous to our marshes and ditches, though possessed of a poisonous fluid in its leaves and epidermis of the root, yet furnishes in the latter, when boiled, a wholesome food for man, and fattening nourishment for pigs in its leaves. The sea and rivers teem with fish, and the beaches with molluscs and edible sea-weeds. If any part of a ditch is dug, in three or six months it will be filled with fish, and daily from it you will see superannuated women and young children drawing out small yet tasty fish to season their dry rice or insipid clady.—*Journal of the Indian Archipelago*.

#### EEL FASCINATED BY A SNAKE.

On approaching an almost dry drain, I saw a snake slowly extending his coils, raising his head, and steadfastly gazing on what I saw to be an eel of about a foot in length. The eel was directly opposed to the snake, and glances seemed to meet glance, when the snake, having gained the requisite proximity, darted on the eel and caught it about an inch behind the head, and carried it off; but the captor was soon himself the captive, for with a blow on his head I secured both.—*Journal of the Indian Archipelago*.

#### EXCELLENCIES OF KNOWLEDGE.

There are in knowledge these two excellencies: first, that it offers to every man, the most selfish and the most exalted, his peculiar inducement to good. It says to the former, "Serve mankind, and you serve yourself;" to the latter, "In choosing the best means to secure your own happiness, you will have the sublime inducement of promoting the happiness of mankind." The second excellence of knowledge is, that even the selfish man, when he has once begun to love virtue from little motives, loses the motive as he increases the love, and at last worships the Deity, where before he only coveted gold upon its altar.—*Buhver*.

#### INDUSTRY.

If industry is no more than habit, it is at least an excellent one. "If you ask me which is the real hereditary sin of human nature, do you imagine I shall answer pride, or luxury, or ambition, or egotism? No; I shall say indolence. Who conquers indolence, will conquer all the rest." Indeed all good principles must stagnate without mental activity.—*Zimmerman*.

#### SUSPICION.

There is nothing makes a man suspect much, more than to know little; and therefore men should remedy suspicion by procuring to know more, and not to keep their suspicions in smother.—*Lord Bacon*.

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